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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,931	03/26/2004	Charles Ray Masters	5709	1911
7590	03/14/2006		EXAMINER	
Sara M. Current Legal Department, M-495 PO Box 1926 Spartanburg, SC 29304			FLETCHER III, WILLIAM P	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/810,931	MASTERS ET AL.
	Examiner William P. Fletcher III	Art Unit 1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 January 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 20-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 8/24/04
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 1-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 17 Jan. 2006.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 24 Aug. 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The drawing(s) filed 26 Mar. 2004 are approved by the Draftsperson under 37 CFR 1.84 or 1.152.

Specification

4. The abstract of the disclosure is objected to because it does not recite any process steps. Correction is required. See MPEP § 608.01(b).

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD OF MAKING SUNSCREEN FABRIC BY COATING FABRIC WITH A COMBINATION OF TWO URETHANE POLYMERS HAVING RESPECTIVE ELONGATION AT BREAK.

Claim Objections

8. Claim 20 is objected to because of the following informalities: "ration" should, apparently, read "ratio." Appropriate correction is required.

Claim Rejections - 35 USC § 103

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yilgör et al. (US 5,521,273 A) in view of Lacy (US 3,173,189 A).**

a. With respect to claim 20, '273 teaches a process for coating a fabric with a two different urethane polymeric compositions which, together, form a composite coating that reads on applicant's claimed "combination of a first urethane polymer and a second urethane polymer." Each of the urethane compositions have an elongation at break of 500-600% or greater (6:23-26). Clearly, this teaching is inclusive of a urethane "having an elongation at break of greater than or equal to 500%." Further, this teaching renders obvious applicant's claimed urethane "having an elongation at break of less than 500%," since a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected

them to have the same properties.¹ Here, it is the examiner's position that an elongation at break of 499.9...9% is both less than 500% and close enough to 500% so that one of ordinary skill in the art would have expected them to have the same properties.

'273 does not explicitly teach: (i) that the fabric is a sunscreen fabric; (ii) that the fabric is a warp knit fabric having at least a two bar construction; or (iii) that the ratio of the first urethane polymer to the second urethane polymer is about 10:1 on a solids basis.

With respect to (i), it is the examiner's position that this limitation, appearing only in the preamble, does not carry patentable weight because: (a) this limitation is not essential to understand the limitations or terms in the claim body; (b) the preamble has not yet been relied upon during prosecution to distinguish the invention over the prior art; and (c) the claim body describes a structurally complete invention such that deletion of the preamble phrase does not effect the claimed steps of the invention.² Further, because the coated fabric of '273 forms a physical barrier between sunlight on one side and an object or wearer on the other, it inherently functions to reflect, block, or otherwise attenuate at least some of the incoming sunlight and is, therefore, a sunscreen fabric.

With respect to (ii), '273 teaches that the fabric may be a knit fabric (5:20-25), but places no limitation on the particular means of manufacturing the knit fabric. Consequently, one of ordinary skill in the art would have looked to the prior art for suitable means of doing so. Lacy teaches a two bar process for the production of a warp knit fabric (1:37-52). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of '273 so as to produce the knit fabric according to the

¹ *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985)

two bar process of Lacy. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully providing a warp knot fabric of two bar construction.

With respect to (iii), differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical.³ The relative amounts of each urethane polymer are result-effective variables effecting the thickness and overall weight of the coated fabric, the breathability of the coated fabric, etc. (6:6:28-39). Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the claimed ratio, it would have been obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation.⁴

b. With respect to claim 21, it is the examiner's position that the openness of the fabric is a result-effective variable as well, effecting the durability, breathability, etc., of the fabric. Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the claimed openness, it would have been obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation.

c. With respect to claim 22, '273 additionally teaches treating the fabric with a fire retardant (6:10).

d. With respect to claims 23 and 24, Lacy teaches that the knit fabric may be dyed and thermally/fluid treated (i.e., boiled) to improve dimensional stability (1:52-60 and

² *Catalina Marketing International, Inc. v. Coolsavings.com, Inc.*, 62 USPQ2d 1781 (CAFC 2002)

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3:1-10). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of '273 so as to dye and boil the fabric to give a desired color and dimensional stability to the resultant coated article.

e. With respect to claim 25, '273 teaches that the coated fabrics may serve as, for example, garments, outdoor equipment, etc. (3:50-65). It is the examiner's position that all of these structures have components such as zippers, buttons, grommets, etc., to which fabric is affixed via a mechanism such as an adhesive, etc. Consequently, such would have been obvious to one of ordinary skill in the art in producing the articles of '273.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Alzner (US 5,458,935 A) teaches a blend of two polyurethanes, one having an ultimate elongation greater than 200% and the other having an ultimate elongation of less than 50% (2:38-45). The blend is only disclosed as useful for the extrusion production of medical tubing and is nowhere disclosed as a coating.

13. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an

³ MPEP 2144.05(II)(A)

⁴ MPEP 2144.05(II)(B)

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explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). *3/7/2006*


William Phillip Fletcher III
Patent Examiner, USPTO
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